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m pl.}}$ plates. P. 8vo. Post Octavo. portr. } portraits. pp. pages. red. reduced. rev. revised. Roy. Royal. School Bull. Pub. School Bulletin Publications. Sci. Ser. Science Series. Scient. Manuals. Scientific Manuals. ser. Ser. Series. shp. sheep (binding.) Sm. small. Spec. Ser. Specialist's Series. Sq. Square. Stand. Standard. Subs. \(\) subscription, subs. \(\) (sold by subscription.) suppl. supplement. Textb. of Sci., Textbooks. of S. Textbooks of Science. thous. thousand. trans. translated. U. S. United States. V. N. S. S. Van Nostrand's Science Series $\left\{\begin{array}{l} vol. \\ v. \end{array}\right\}$ volume. vols. volumes. W. pl. with plates. Wash. Washington. Weale's Ser. Weale's Series.

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INTRODUCTION.

I have examined the proof sheets of Part IIa of H. E. Hafer korn's "Handy Lists of Technical Literature" and consider it very complete and useful bibliography of the subjects covered, a far as concerns permanent publications in the English language For Engineers, Electricians and Inventors who find it necessary t familiarize themselves with the state of Electrical Science and it applications to the purposes of practical life, the work should prov very valuable, as it covers all that is of any practical value in the Electrical field up to the present year. Such a work as this has become almost a necessity, as the growth of technical literature has been so rapid within the past few years that without such reference lists it is well nigh impossible for any one to learn where to look to information concerning it.

A. J. SHAW, Supt. & Mgr.,

THE SHAW ELECTRIC CRANE C

Milwaukee, Wis., Nov. 24. 1890.

PREFACE.

Originally it was intended to publish Part IIa before Part II, or include its subjects in that part. Considering that **lectricity** and the professions based thereon play such an important part in the industries of the present day, I have decided o embody Electricity and relative subjects in a separate volume.

The cross-references in this part are not given to any great **xtent**, as in this instance they would prove annoying rather, **han practical**.

All new books published before October 30th, 1890, that could traced, and a number of old and rare books are also enumated, which, it is hoped, will be of great use in making out a ton any subject desired.

Subscribers and users of the "HANDY LISTS" will greatly lige me by calling my attention to mistakes and omissions at can be proved and by giving information regarding titles of w books treating on the subject of Electricity, etc.

Books treating on Electricity used in the practice of Medicine e omitted.

THE COMPILER.

Explanation of Entries.

The main entry of each work will be found under the author's name, containing full title, year of issue, publisher's or agent's name, editions and price. The publisher or distributing agent of each book is indicated by a system of abbreviations, at the end of the entry, which are explained in the accompanying Key, containing a list of all publishers and agents represented in this part. For the convenience of booksellers, and especially in order to facilitate procuring books in a hurry, the method of distinguishing the publisher of each work, heretofore employed in the key, has in this part been extended to the abbreviations in the main entry, so that the heavy letters indicate the publisher or sole agent, while those in ordinary light-faced type designate the jobber, to whom the bookseller may apply for copies in case the publisher should be out of the work.

The various editions of a book with their prices, have been specified, including American reprints of English works, the first price mentioned being that of the *original* publication.

If a second value is added, in a different monetary standard, it indicates the price at which the book is sold by the jobber or agent stated in connection with each entry.

The exact year of publication has been added in all cases where it could be ascertained, and enclosed in brackets whenever it does not appear on the title-page. When two or more editions have been issued at the same price, the dates of all, but the last have been enclosed in parantheses.

The subject headings are entered in the same alphabetical series as the authors, but are distinguished by being printed in *italics*. The numbers following refer to the numbers prefixed to each entry of a distinct book, and indicate that the subject is treated in the books mentioned.

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If in search for books or treatises on a certain subject, turn to this subject, printed in *italics*, as stated above. In case there are more than one work referred to, take a slip of paper and copy all the numbers and cross-references, and, with this for a guide, look up first all the numbers copied, then the numbers under each one of the related subjects referred to.

PART IIa.

Electricity and Magnetism, Telegraph, Gas, etc.

N. B.—If a dagger † appears before the title it denotes that the DATE of publication could not be traced, but that the book is inserted in "Whitaker's Reference Catalogue," 1889.

If the YEAR appears in brackets [] it designates that the book was copyrighted in that year, but the year does not appear on the title-page

The year of the FIRST OF A FORMER edition is given in parenthesis ().

In cases, where an English book is handled by an American importer, and vice versa, the size

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A 1 Telegraph code 78.

A B C code 77.

A B C of electricity 321, 322.

1 Abernethy, J. P. The modern service of commercial and railway telegraphy, in theory and practice. Embracing much valuable and desirable information regarding the railway station service and express service. 6th rev. and enl. ed. Illus. Cleveland, O. (1886) 1887, 12mo, \$2.00.

An excellent work for self-instruction, as well as for class use; covering, practically, both commercial and railway telegraphy.

Accum, F. Description of the process of manufacturing coal gas. With

elevation, sections, and plans of the apparatus employed at the gas works in London (1820). W. 7 col. fold. pl. Lond. 1820. 8vo, bds, \$3.00.

A Century of electricity 323, 324.

Absolute measurements in electricity 178, 179, see 274, 275; see also Electrical Measurement.

Absolute measurements in magnetism 178, 179.

Abstracts of specifications deposited at the Patent Office with reference to electric lighting, see 109.

Accumulators 406, see 71, 75, 388.

Accumulators of the Plante type, see 388.

Action of galvanic battery, see 45.

Adams, Geo. An essay on electricity, explaining the principles of that useful science, etc. W. plates. Lond. 1792, 8vo, old sheep, scarce \$4.00. So-V.

Age of electricity 47

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Alternate current dynamos, see 23.

- Alternate current machinery 265, see 410, 470.
- Alternate current transformer 143.
- Alternating currents 52, see 458.
- Alternating current system, see 237.
- 17 American Bell Telephone Co., et al., vs. the Peoples' Tel. Co., et al. Circuit Court, So. Dist. of N. Y. Argument of E. N. Dickerson for plaintants. Bost. 1884. 8vo. bds. (Printed for private use.)

American telegraphic cipher 132.

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Ampere's hypothesis, see 145.

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Baker, W. G. Magnetism and electricity. (Elem. Textbooks) Lond. 1886. 12mo. 1s.

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- Berly, J. A. Universal electrical directory and business adviser, British, French, Belgian, Russian, Canadian, German and U. S. sec 3d enl. ed. Lond. 1883. 8vo. 7s. 6d., \$3.00.

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- 53 Bleunard, A. Babylon electrified; the history of an expedition u taken to restore ancient Babylon by the power of electricity, and h resulted. Trans. from the French by F. L. White. Illus. by Mont W. map. Phila. 1889. 8vo. \$2.50, 12s. Cd.
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